

Cytomorphological Studies in *Dugesia* Species of Iran

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The fresh water planarians belong to the phylum platyhelminthes, an old monophyletic group, which branched from the rest of metazoans at an early stage and b considered as the sister group of other bilateral triploblastic organisms. They possess a great morphological plasticity and regeneration power and are remarkable for the occurrence of local polyploid ploulations and the occasional presence of mixoploidy and mosaics having both diploid and triploid tissues. Although there have been extensive cytological studies on planarian in many countries, there has been no report from Iran.

Dugesia species of Karaj River were investigated from cytological and morpho-anatomical point of view. Two different populations were studied. Individuals from Gajereh region possessed $2n=25$ and those of Gachsar possessed $2n=26$. They varied in details of karyotypes, G-binding pattern and morpho-anatomical features. Cluster analysis separated the two populations of *Dugesia* in different clusters. Two new species of *Dugesia* with new chromosome number having complete asexual reproduction are reported.

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